

Electromechanical Fuel Shutoff Valves

M25 & M50 Series

These fuel shutoff valves are semi-automatic devices for shutdown of natural gas-fueled engines. The valve is opened manually and closes when the electromagnet is energized and trips the latch. The valve can be closed manually by turning the disconnect knob. A normally energized model is available that holds the valve open electrically and closes when the coil is de-energized. A vent in the valve body relieves trapped gas when the valve closes. A pop-out indicator button informs you when the valve is open or closed.

The valve's tripping power is provided by an engine ignition system or battery. Models are available for magneto, CD ignition or 12-/24-V battery.

The **M2582** is a 1-inch (25 mm) valve with one NPT connection. It has one SPDT snap-switch. The valve body is made of sandcast aluminum. It does not include the open/close indicator button.

The **M5081** is a 2-inch (51 mm) valve with two NPT connections. It has two SPDT snap-switches. The valve body is available in sandcast aluminum or cast steel (optional).

The **M5081FS** is the same as the M5081 but has a normally energized circuit. This circuit allows the valve to be held open electrically and close by interruption of the coil's power circuit. A manual trip knob is not available on this model. An optional 2-inch (51 mm) steel flange pipe connection is available for M5081 and M5081FS steel body models (see Dimensions).

Options & Accessories

Diode Package (65010065)

The FW Murphy 202 V diode package is designed to allow the fuel shutoff valve to be used with dual Magneto Ignition systems. Sold separately (see How to Order).

Magnetic Switch Adapter

As ignition systems wear from usage, their power output becomes less and less. Ignition may not have the capacity to reliably trip the fuel valve. Therefore, the use of a Magnetic Switch Adapter for CD ignition systems is recommended. The adapter stores energy from the CD ignition to trip the fuel valve.

Two models are available:

65700053 (65020126):

For Negative Ground CD Ignitions up to 240 VDC

65700055 (65020155):

For Negative Ground CD Ignitions 240 VDC to 450 VDC



Specifications

Valve Body: Sandcast aluminum, painted red (corrosion resistance). Optional cast steel available for M5081 and M5081FS models only.

Valve Seat: Buna-N

Maximum Pressure Rating:

- M2582: 80 psig (552 kPa) [5.52 bar]
- M5081: 100 psig (689 kPa) [6.89 bar]
- M5081FS: 100 psig (689 kPa) [6.89 bar]

Coil Rating: Intermittent duty; coil type must match power source;

- CD ignition coil resistance: 72 Ω
- CD primary voltage current: 1.38 to 3.8 A
- M5081FS model: Energized to run (continuous-duty coil) coil resistance:

12 Volt model: 33 Ω (0.36 A)

24 Volt model: 136 Ω (0.17 A)

- Magneto ignition coil resistance: 0.5 Ω
- Magneto primary voltage current: 1 to 5 A
- Battery coil resistance: 7 Ω
- 12 or 24 VDC: 1.2 to 2.4 A

Wiring (See Internal Wiring):

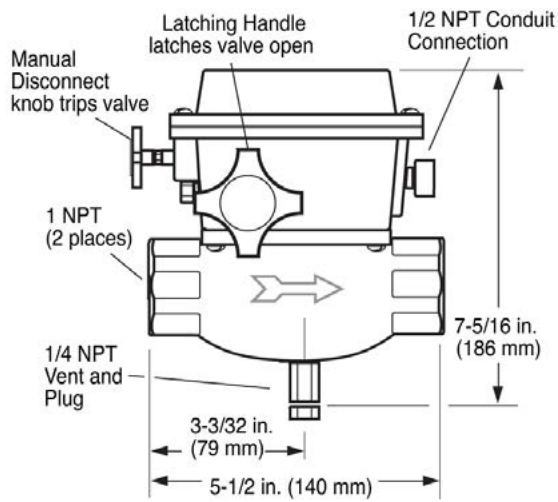
- M2582: Wire leads
- M5081 and M5081FS: Terminal blocks

Snap-switch Rating: 5 A @ 480 VAC

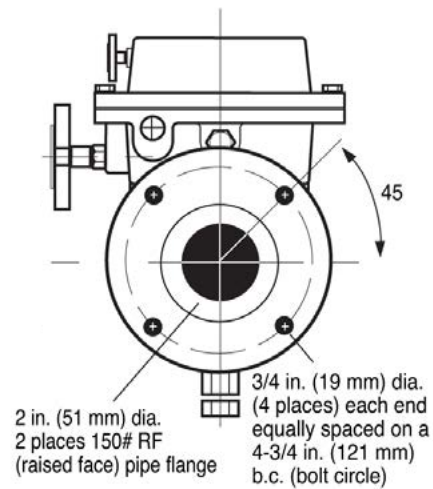
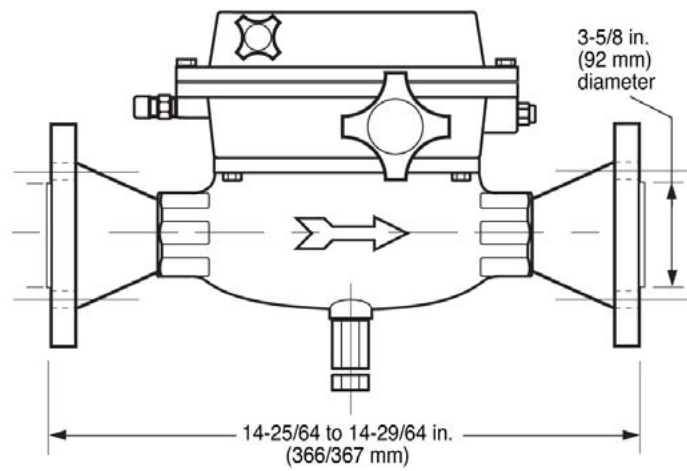
Laboratory Approval: CSA listed for Class I, Groups C and D Hazardous Locations. 5 amps maximum; intermittent duty; models M5081 and M5081-CD engine ignition powered and model M5081-B, 12 or 24 VAC or VDC; switch contacts rated 5 A @ 480 VAC maximum

Dimensions

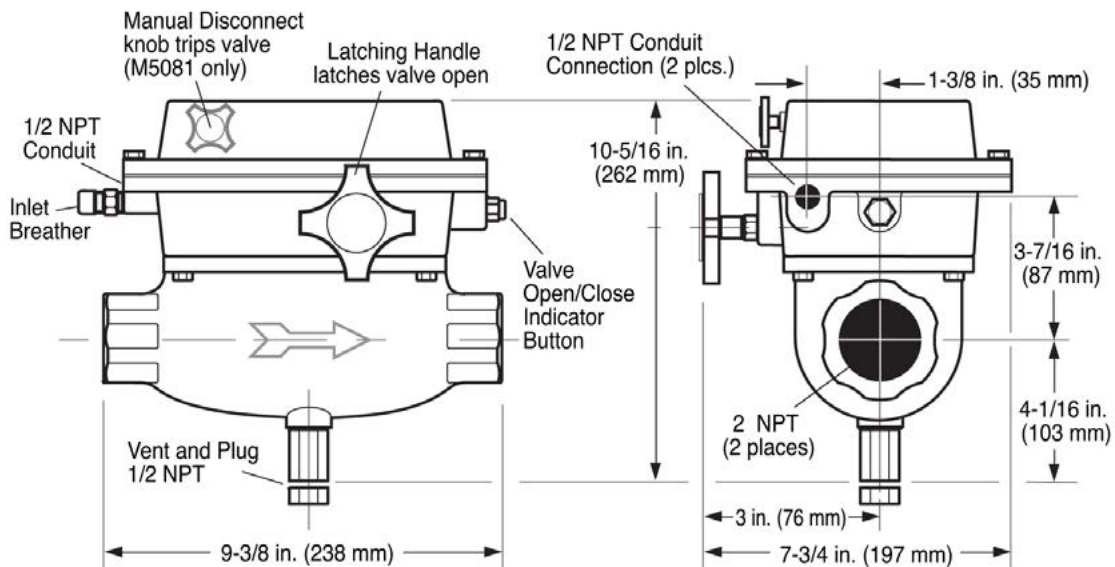
M2582



Steel Flanged Option 3 (available on M5081FS and M5081FS steel body configurations only)

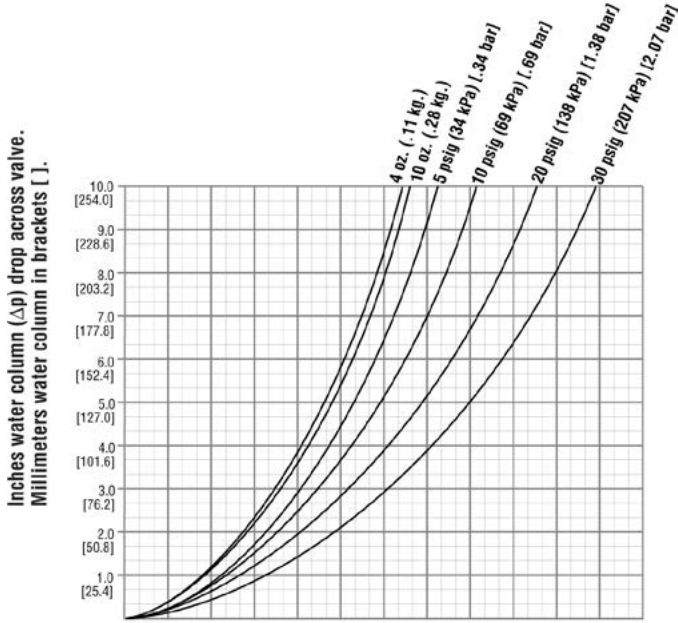


M5081 & M5081FS



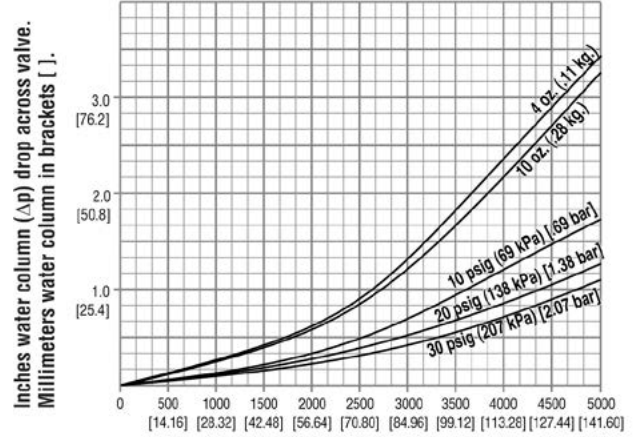
Flow Rates

M2582



Standard cubic feet per hour. Cubic meters per hour in brackets [].

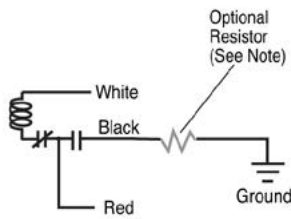
M5081 & M5081FS



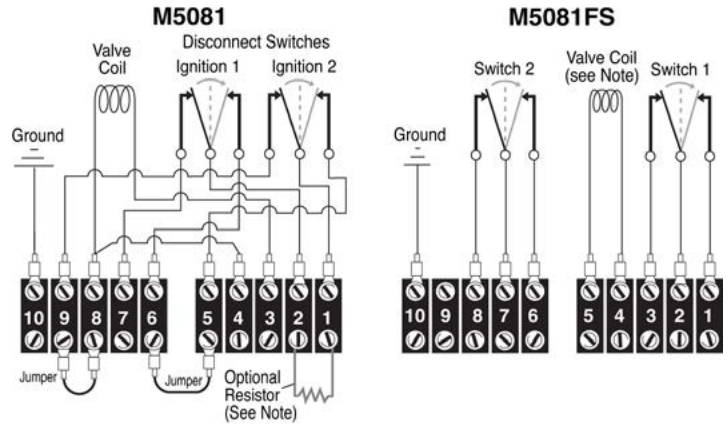
Standard cubic feet per hour. Cubic meters per hour in brackets [].

Internal Wiring

M2582



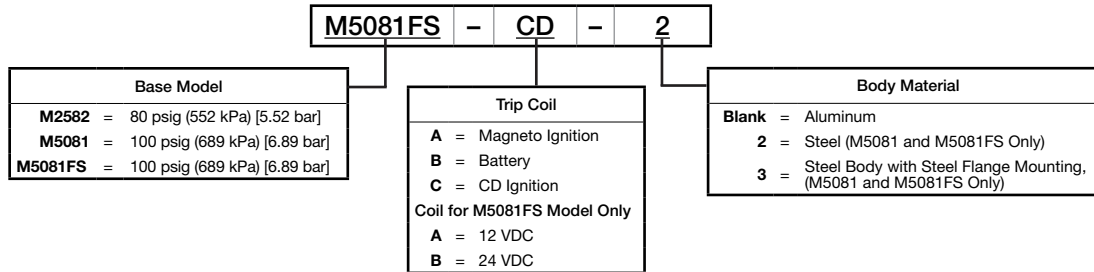
M5081 & M5081FS



» **NOTE:** For grounding the ignition (CD models only) through the fuel valve's internal snap-switch, a FW Murphy Magnetic Switch adapter (see How To Order) must be used in addition to a 100 ohm, 2 watt resistor.

How to Order

Options listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information.



Part Number			Description	Notes
65700053			Magnetic Switch Adapter (for M2582 and M5081)	For Negative Ground CD Ignitions up to 240 VDC
65700055				For Negative Ground CD Ignitions 240 VDC to 450 VDC
M2582	M5081	M5081FS	Service Parts	Notes
55000128	55000126	-----	Battery	Coil Assembly
55000129	55000127	-----	CD Ignition	
55000094	55000080	-----	Magneto Ignition	
-----	-----	55000158	12 VDC	FS Coil Assembly
-----	-----	55000159	24 VDC	
55000095	55000074	-----	Latch Block Assembly	Latch Block Assembly
55000144	-----	-----	Latch Block Switch and Coil Assembly	
-----	55000118	-----	Latch Block Switch and Mounting Bracket Assembly	
-----	55000102	55000102	Handle & Latch Kit	
55000096	-----	-----	Handle Kit	
55000097	55000137	-----	Manual Disconnect Assembly	
55000098	55000072	55000160	Snap-Switch Assembly	
-----	55000138	55000138	Close/Open Indicator Assembly	
55000093	55000075	55000135	Stem & Seat Kit	
55000146	55000131	55000161 (12V) 55000194 (24V)	Top Works Complete Valve Less Body and Vent	
55000143	55000132	55000132	Vent Bushing Assembly	
-----	65010065	-----	Diode Package for Dual Magneto Ignitions	

Shipping Information

Shipping Weights:

- M2582: 5 lbs 8 oz. (2.49 kg)
- M5081: 14 lbs 8 oz. (6.58 kg)
- M5081-2: 40 lbs (18.14 kg)
- M5081-3: 56 lbs (25.40 kg)
- M5081FS: 14 lbs 8 oz. (6.58 kg)
- M5081FS-2: 40 lbs (18.14 kg)
- M5081FS-3: 56 lbs (25.40 kg)

Shipping Dimensions:

- M2582: 8 x 8 x 7 in. (203 x 203 x 178 mm)
- M5081: 12 x 12 x 9-5/16 in. (305 x 305 x 237 mm)
- M5081-2: 12 x 12 x 9-5/16 in. (305 x 305 x 237 mm)
- M5081-3: 18 x 12 x 13-1/2 in. (457 x 305 x 343 mm)
- M5081FS: 12 x 12 x 9-5/16 in. (305 x 305 x 237 mm)
- M5081FS-2: 12 x 12 x 9-5/16 in. (305 x 305 x 237 mm)
- M5081FS-3: 18 x 12 x 13-1/2 in. (457 x 305 x 343 mm)